ABSTRACT OF THE DISCLOSURE

A method for finding an extrema for an n-dimensional array having a plurality of processing elements, the method comprises determining within each processing element a first dimensional extrema for a first dimension, wherein the first dimensional extrema is related to the local extrema of the processing elements in the first dimension and wherein the first dimensional extrema has a most significant byte and a least significant byte, determining within each processing element a next dimensional extrema for a next dimension of the n-dimensional array, wherein the next dimensional extrema is related to the first dimensional extrema and wherein the next dimensional extrema has a most significant byte and a least significant byte; and repeating the determining within each processing element a next dimensional extrema for each of the n-dimensions, wherein each of the next dimensional extrema is related to a dimensional extrema from a previously selected dimension.